

# Innovation, Science and Economic Development Canada

2019-20

## **Departmental Plan**

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The Honourable Navdeep Bains, P.C., M.P.  
Minister of Innovation, Science and Economic  
Development

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The Honourable Kirsty Duncan, P.C., M.P.  
Minister of Science and Sport

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The Honourable Mélanie Joly, P.C., M.P.  
Minister of Tourism, Official Languages and La  
Francophonie

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The Honourable Mary Ng, P.C., M.P.  
Minister of Small Business and Export Promotion

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## Ministers' message



**The Honourable  
Navdeep Bains**  
Minister of Innovation,  
Science and Economic  
Development



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Minister of Science and  
Sport



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La Francophonie



**The Honourable  
Mary Ng**  
Minister of Small  
Business and Export  
Promotion

It is our pleasure to present the 2019-20 Departmental Plan for Innovation, Science and Economic Development Canada. We are working across the Innovation, Science and Economic Development Portfolio to support and develop the innovation ecosystem, strengthen science to support evidence-based decision making, champion the tourism sector, and help small businesses start up and scale up.

As highlighted in the *Building a Nation of Innovators*<sup>i</sup> report, we are fostering a strong economy that works for everyone, including Canadian businesses, innovators and entrepreneurs. In 2019-20, we will maintain our clear focus on the implementation of the next phase of Canada's Innovation and Skills Plan.

Through the Strategic Innovation Fund, the Innovation Superclusters Initiative and the Venture Capital Catalyst Initiative, we will nurture a culture of innovation to accelerate the commercialization of innovative products, and inspire adoption of environmentally friendly technologies so that all Canadians reap the benefits of technological transformation. We will help bridge the digital divide by making new investments to provide rural and remote regions across Canada with high-speed, broadband internet access, while programs such as CanCode and Digital Skills for Youth will equip Canadians with the skills and on-the-job experience and training to succeed in an era of rapid change, capitalizing on Canada's competitive advantage: its people.

Budget 2018's historic investments in fundamental science and research will bring about world-first discoveries and feed the innovation pipeline. These investments include a strong focus on equity, diversity and inclusion in research by empowering more women, Indigenous peoples and those otherwise underrepresented in research to pursue a career in the sciences. Providing access to big data resources and digital research infrastructure is a priority, as well as our work to

support the Federal Science and Technology Infrastructure Initiative to maintain cutting-edge federal laboratories.

Informed by advice received from the Advisory Council on Jobs and the Visitor Economy, and associations and organizations across Canada, we are focussed on delivering a new Federal Tourism Strategy that will champion Canada’s tourism sector. The new strategy will seek to unlock tourism’s high-growth potential in order to drive economic development and create jobs in regions across the country, and particularly in rural and remote areas. Tourism currently accounts for 1.8 million jobs in Canada and is our number one employer of youth. Tourism also provides good jobs for underrepresented Canadians, including Indigenous people and new Canadians.

Leveraging Canada’s entrepreneurial spirit is a key component of the Innovation and Skills Plan by encouraging small and medium-sized enterprises to scale up, integrate into value chains, export and compete globally. For example, the Government is acting as a first customer by inviting Canada’s innovators to solve government challenges through the Innovative Solutions Canada program. Investments under the Women Entrepreneurship Strategy are also empowering Canadian women to start and grow their businesses, supporting Canada’s future competitiveness and prosperity.

Ultimately, the Portfolio’s work create the right environment to generate ideas, commercialize those ideas, and give Canadians the skills to access the jobs and opportunities presented by today’s economy.

Together with Canadians of all backgrounds, regions and generations, we are building a strong culture of innovation to position Canada as a leader in the global economy.

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## Plans at a glance and operating context

### **Accelerating Canada’s Innovation and Skills Plan**

The Innovation and Skills Plan is a major redesign of the innovation policy landscape in Canada. It is a new microeconomic framework to drive growth – one that aims to succeed by building a culture of innovation and a globally recognized brand as one of the most innovative and competitive countries in the world. The multi-year plan builds on Canada’s innovation strengths and identifies gaps along the innovation continuum: from people and skills, through to fundamental and applied research, building innovation ecosystems, commercializing ideas and starting-up companies, to exporting and scaling-up globally competitive companies. Emphasizing partnerships, it brings together stakeholders from across the innovation system. It embraces inclusivity and fosters the participation of traditionally underrepresented groups in the innovation economy.

This year, in particular, business-led innovation will be accelerated across the country through targeted business investments made under programs such as the Strategic Innovation Fund, the Innovation Superclusters Initiative and the Venture Capital Catalyst Initiative. These investments leverage high-quality business opportunities to help create the jobs of today and build an economy for tomorrow so that Canadians reap the benefits of a strong and innovative economy. ISED will also help businesses and researchers tackle environmental challenges through innovative solutions, ensuring that Canada remains positioned to capitalize on opportunities in the global clean technology market. Enhancements to the Innovation Canada platform will further strengthen the initiative’s role as a single window for Canadian businesses to discover the most relevant programs and services – from across all levels of government – to help them grow. These efforts are part of the new whole-of-government approach that has redefined business innovation support – including reducing the number of programs by two-thirds and increasing overall funding – to make it more demand-driven and targeted to real-world business needs.

ISED will continue to advance the digital skills, know-how and infrastructure necessary to promote inclusion and participation in the digital economy and prepare Canadians for the jobs of tomorrow through its suite of programs, such as Digital Skills for Youth and funding provided to Mitacs Research Internships, which support work-integrated learning placements. ISED’s Connect to Innovate program will help bring high-speed Internet to new rural communities across the country. The Department will also lead work with provincial and territorial partners to develop a long-term Canadian connectivity strategy to improve access to high-speed Internet services for all Canadians.

To ensure the ongoing success of the Innovation and Skills Plan, ISED will also use the National Digital and Data Consultations to inform how Canada can drive digital innovation, prepare Canadians for the future of work and ensure they have trust and confidence in how their data is

used. For example, building on Canada’s strong research foundation in artificial intelligence and work under the Pan-Canadian Artificial Intelligence Strategy, ISED will remain active at home and abroad to position the country as a leader in the field to ensure Canadians reap the benefits, while supporting responsible adoption that safeguards Canadians.

### **Delivering on Canada’s Science Vision**

ISED will continue to support the implementation of the government’s historic investments in research and next-generation scientists, as part of the long-term vision for the future of science and research in Canada. Investments include a focus on promoting diversity and empowering more women, Indigenous peoples and those otherwise underrepresented in research to pursue a career in the sciences. The vision’s priorities will also include strengthening science and evidence-based decision-making, as well as ensuring better collaboration between government and academia – to inform science-related policy that Canadians count on for questions such as keeping their air clean, their food safe and their water fresh. Investments under the Digital Research Infrastructure Strategy will advance another key priority: delivering more open and equitable access to essential digital research tools and services to researchers across Canada to strengthen their ability to harness big data and conduct world-class research. Investment in science and research is essential to innovation and fundamental to ensuring Canada’s workforce is equipped to take on the rapid pace of change today, and the challenges on the horizon.

### **Supporting Canadian small businesses and entrepreneurs**

Work being done across the Department to deliver the Innovation and Skills Plan includes a clear focus on helping entrepreneurs and Canadian small and medium-sized businesses (SMEs) start up, scale up and access new markets – particularly through trade and innovation – and aligning complementary programs to help make doing business easier for SMEs. For example, through Innovative Solutions Canada, the federal government – the single-largest purchaser of goods and services – is using its procurement power to encourage Canadian small businesses to develop innovative solutions that solve government challenges, nurturing the development and adoption of innovation in Canada through home-grown talent. In support of Canada’s Export Diversification Strategy, ISED will also work collaboratively with key partners to support and strengthen SME readiness to export overseas.

ISED will strengthen regional ecosystems, support inclusion and reinforce leadership in areas of high growth to support innovators in every part of the country. For example, the Regional Economic Growth Through Innovation program will provide nationally coordinated and regionally tailored support to high-potential Canadian businesses. Through implementation of the Women Entrepreneurship Strategy (WES), ISED will help women start up, grow their businesses and access new markets by improving access to financing, talent, networks and expertise – with the goal of doubling the number of majority women-owned businesses by 2025. In particular, ISED will work with RDAs on the delivery of two new programs: the Women



Entrepreneurship Fund and the WES Ecosystem Fund. WES will contribute to creating a diverse, inclusive economy that supports prosperity and a better quality of life for all.

### **Implementing a new federal tourism strategy**

ISED will work with Canadians, stakeholders, partners, other levels of government and Indigenous stakeholders to implement a new federal tourism strategy, to foster the growth of Canada's tourism sector and harness the sector's full growth potential to create good jobs that support middle class families in regions across the country. Informed by the advice provided from the Advisory Council on Jobs and the Visitor Economy, and continued consultations with the sector's varied experts and stakeholders, the strategy will guide ISED's work with all partners to expand tourism opportunities to every region and help develop Canadian communities into tourist destinations.

### **Operating context**

Canada is in a global innovation race, competing with countries around the world for the most talented people, the newest technologies and the fastest growing companies. More needs to be done to ensure the strength of the middle class as Canada's traditional drivers of growth are no longer sufficient in today's economy. The global economy is in a slow-growth cycle and Canada cannot rely as much as it has in the past on increased trade and high commodity prices. With an aging population and historically low unemployment rates, attracting the right talent to support our growing firms and innovation will remain a challenge. Climate change, a defining issue of our generation, is also reshaping how countries around the world meet their energy needs and how they think about growth, and will influence how Canada and other countries manage natural resources in a world of both rising energy consumption and rising climatic risk.

Digital transformation is changing business models and the future of work. Technology is digitizing and automating every aspect of our lives—and it is happening much faster than anyone ever imagined. Technology is challenging every industry and every worker. New jobs and companies that never existed before are now being created. To respond to the pace of technological change, Canadians need to stay as open and flexible as possible and adopt new technologies and learn the skills necessary to prepare for the jobs of the future.

To this end, ISED is advancing Canada's Innovation and Skills Plan, a whole-of-government, multi-year approach designed to make Canada a global innovation leader. Developed in consultation with Canadians, the Innovation and Skills Plan focuses on four interconnected pillars to spark innovation through partnerships and targeted actions:

- People and skills: Ensuring businesses have the right pipeline of talent to succeed and equipping Canadians with the tools, skills and experience they need to succeed throughout their lifetimes.
- Building ecosystems – science, technology and superclusters: Building innovation ecosystems through new partnerships, bridging the gap from idea, to commercialization, to growing globally-minded firms.
- Investment, scale-up and growing companies: Attracting investment, supporting the growth of leading Canadian companies and start-ups, and exporting.
- Program simplification and reorganization: Offering a timely, client-centric single window in the delivery of business innovation programs in every region.

Through the Innovation and Skills Plan and the Department’s suite of initiatives and programs, ISED will help Canadian businesses address key challenges as they move along the innovation continuum and will support Canadians to adapt to and fully participate in the innovation economy.

For more information on ISED’s plans, priorities and planned results, see the “Planned results” section of this report.

## Planned results: what we want to achieve this year and beyond

### Core Responsibilities

#### Name of Core Responsibility

People, Skills and Communities

#### Description

Support the creation, transfer and diffusion of knowledge to ensure that Canadians, including underrepresented individuals: are equipped with the skills and tools to participate in an innovative, high-growth economy; advance a culture of innovation where Canadians are motivated to address local, regional, national and/or global challenges; benefit from growth of the middle class across communities; have increased access to affordable broadband and mobile Internet, including in rural and remote regions; and are protected and informed consumers.

#### Planning highlights

**Departmental Result:** Canada has a highly skilled workforce that is equipped for jobs in an innovative and high-growth economy

The People and Skills pillar of Canada’s Innovation and Skills Plan supports Canadians throughout their lifetimes, ensuring firms have the talent they need to grow. From inspiring youth to pursue careers in coding to lifelong skills development, its interconnected suite of programs use partnerships to build a resilient and skilled workforce for the future.

In 2019-20, ISED will continue to support Mitacs’ program for work-integrated learning placements for post-secondary students and graduates, which is on track to reach 10,000 a year by 2021-22. ISED’s [Digital Skills for Youth \(DS4Y\)](#)<sup>ii</sup> – a component of the interdepartmental Youth Employment Strategy – launched in 2018-19, connects recent post-secondary graduates with small businesses or not-for-profit organizations to learn in-demand digital and soft skills through a work-integrated learning experience. DS4Y will provide up to 630 internships to underemployed graduates across Canada, offering them meaningful work experience to help them transition to career-oriented employment. To encourage diverse participation, delivery organizations eligible for funding include Indigenous governments, Band Councils and other not-for-profit groups representing Indigenous people.

The development of digital skills will also be supported through the \$29.5 million [Digital Literacy Exchange](#)<sup>iii</sup> program, which will support the delivery of fundamental digital literacy training to ensure no one is left behind in the digital world. It is focussed on serving

underrepresented groups, including persons with disabilities, Indigenous people, individuals whose first language is not English and those who have not completed high school. ISED is providing project funding from 2018-19 to 2021-22 to support not-for-profit organizations that will deliver training for Canadians who would benefit from improved skills and confidence in using computers and the Internet safely, securely and effectively.

### Digital Literacy Exchange: applying CanCode's lessons learned to better serve underrepresented groups

ISED's Digital Literacy Exchange Program (DLEP) is part of a suite of programs and investments that support skills development and aim to improve Canadians' digital literacy. This includes CanCode, a two-year program ending on March 31, 2019, that provides students from kindergarten to Grade 12, and their teachers, with coding and digital skills training. Both CanCode and DLEP target those most at risk of being left behind by the rapid adoption of digital technology. CanCode has been very successful in promoting participation of those traditionally underrepresented in science, technology, engineering and mathematics (STEM) fields, including girls, Northern and Indigenous students, at-risk youth and those in rural and remote regions. Based on the lessons learned through CanCode, changes were made to the application, selection and reporting requirements, including:

- Collecting anticipated participant geographic reach at the application stage, with confirmation at the contribution agreement negotiation stage, to ensure appropriate geographic coverage and demographic reach;
- Ensuring that the projects selected are – by design – being delivered in environments / locations with a high proportion of the target underrepresented groups; and
- Improving qualitative and quantitative data collection tools and approaches, for more robust outcome and impact reporting.

In 2019-20, ISED will also co-fund up to 6 additional projects under the [Accessible Technology Program<sup>iv</sup>](#). Led by the private sector, not-for-profit organizations and research institutes, these projects notably develop affordable assistive and adaptive digital technologies that remove barriers to employment faced by Canadians with disabilities.

**Departmental Result:** Canadian communities are connected to and use digital infrastructure

Technology is not only accelerating change but transforming industries and business models. Strong connectivity and access to high-speed Internet is necessary to live, study and work in today's digital world. Through various initiatives, ISED works to bridge the digital divide and ensure that all Canadians have access to the infrastructure needed to participate in our digital economy.

In 2019-20, ISED will continue its leadership role in developing a Canadian connectivity strategy with provincial and territorial partners. A topic at the upcoming spring 2019 meeting of

federal, provincial and territorial ministers responsible for innovation and economic development, the goal of the strategy is to improve access to high-speed Internet services for all Canadians, including those in rural, remote and Indigenous communities. The national strategy represents a key component of ISED’s response to the Fall 2018 Report of the Auditor General of Canada on Connectivity in Rural and Remote Areas and will be informed by the findings of the 2018 [National Digital and Data Consultations](#)<sup>v</sup>.

ISED’s [Connect to Innovate \(CTI\)](#)<sup>vi</sup> program will continue bringing high-speed Internet to rural and remote communities in Canada by supporting “backbone” infrastructure to connect institutions, such as schools and hospitals, as well as “last-mile” infrastructure to connect households and businesses. The program will invest up to \$500 million by 2021 to ensure these communities across Canada are well positioned to take advantage of the opportunities afforded by the digital age. As of December 2018, more than \$466 million has been committed towards 180 announced CTI projects. These projects cover 900 communities, three times the original target of 300, including an unprecedented number of projects that will benefit the North and Indigenous peoples. In 2019-20, all CTI projects will have been announced and contribution agreements signed, and it is expected that up to one-quarter of projects will be complete.

ISED will help connect hundreds of thousands of low-income Canadians to the Internet through its support to the [Connecting Families](#)<sup>vii</sup> initiative. Participating Internet service providers (ISPs) are voluntarily contributing to the initiative by offering \$10 Internet service to eligible low-income families. In addition, up to 50,000 refurbished computers will be provided to eligible families at no cost through the existing [Computers for Schools \(CFS\)](#)<sup>viii</sup> program. In 2019-20, ISED will increase the number of ISPs participating in the Connecting Families initiative and ensure up to 12,500 computers are delivered. Connecting Families builds on 25 years of success for the CFS program. In 2019-20, in addition to delivering the new low-cost Internet initiative, CFS will refurbish an estimated 70,000 computers and provide approximately 250 internships.

**Departmental Result:** Canada’s entrepreneurs represent all segments of Canadian society

Canada’s diversity is a strength in an increasingly interconnected global economy. ISED helps to promote diversity by ensuring support to entrepreneurs from underrepresented groups, including women and Indigenous peoples.

As part of broader investments under the Innovation and Skills Plan, ISED will provide national oversight for the [Women Entrepreneurship Strategy \(WES\)](#)<sup>ix</sup>. Focused on helping women to start and grow their businesses, this Strategy provides improved access to financing, talent, networks and expertise through nationally coordinated, regionally tailored programs for women entrepreneurs and the organizations that support them. In 2019-20, ISED alongside the [Federal](#)

[Economic Development Initiative for Northern Ontario \(FedNor\)<sup>x</sup>](#) and in collaboration with other regional development agencies (RDAs) (i.e. the Atlantic Canada Opportunities Agency, Canada Economic Development for Quebec Regions, the Canadian Northern Economic Development Agency, the Federal Economic Development Agency for Southern Ontario and Western Economic Diversification Canada), will deliver two new programs: the [Women Entrepreneurship Fund<sup>xi</sup>](#) and the [WES Ecosystem Fund<sup>xii</sup>](#). The Women Entrepreneurship Fund will invest in women entrepreneurs to grow their businesses and pursue new market opportunities. The WES Ecosystem Fund will help non-profit, third-party organizations deliver support for women entrepreneurs and address gaps in the ecosystem.

ISED will also support investments in the [Women Entrepreneurship Knowledge Hub<sup>xiii</sup>](#). The Hub will serve as a one-stop source of knowledge, data and best practices and will deliver activities to support the advancement of women entrepreneurs from diverse backgrounds. Activities will include collecting, analyzing, and disseminating information, and advancing research on women's entrepreneurship to better understand and assist women entrepreneurs. Furthermore, ISED will support the establishment of the WES Expert Panel to provide diverse expertise and perspectives, including exploring options to solve service gaps for Canadian women entrepreneurs. The Panel will help guide efforts in regional and national programs.

The investments under the Women Entrepreneurship Strategy will work toward doubling the number of women-owned businesses by 2025 and inspire more women to contribute to, and benefit from, a growing economy that drives inclusive economic growth and the creation of more well-paying jobs for all Canadians.

ISED is also working to ensure that government programs support the success of all entrepreneurs and help Canadian SMEs seeking to grow, scale up, and become more innovative. Led by a Special Advisor to the Minister of Small Business and Export Promotion, the Department will complete in 2019-20 a case study project with a view to identify recommendations to further strengthen the Government of Canada's ability to support SMEs for scale up and export mobilization. The project will assess the effectiveness of existing ecosystems from an SME perspective and pinpoint to pivotal gaps relevant to Canadian SMEs' experiences. The findings will inform improvements to ISED's SME programming and further support the work of entrepreneurs across Canada.

In addition, through FedNor and in alignment with RDAs, ISED will continue implementing the [Regional Economic Growth Through Innovation program<sup>xiv</sup>](#), with the goals of advancing growth and innovation and diversifying economies to build stronger and more innovative communities across Canada. The program refocuses existing RDA innovation programming on two key areas: business scale-up and productivity and regional innovation ecosystems. Under REGI, FedNor and RDAs will also undertake in 2019-20 an initiative to target capability enhancing investments for the many SMEs across Canada that are downstream steel and aluminum users. Funding under

the REGI program is part of broader efforts aimed at supporting businesses and workers impacted by the tariffs and countervailing measures in the steel and aluminum industry. Aligned with the REGI program, FedNor will provide strategic investments in 2019-20 to foster an entrepreneurial environment conducive to innovation, growth and competitiveness that is tailored to the needs of Northern Ontario, including those of Indigenous communities.

### Key risk

The high degree of interdependencies with partners, and the non-traditional nature of the innovation economy, could impact ISED's ability to align stakeholder interests and efforts to create programming that fully meets the needs of emerging industries and that adequately equips all Canadians to participate in an innovative and high-growth economy.

To mitigate this risk, ISED will foster strong relationships with stakeholders and work to ensure that policies and programs are appropriately responsive to the needs of emerging industries and underrepresented groups. For example, as part of the work to deliver the WES, ISED will support the WES Expert Panel to provide expert advice from diverse viewpoints, including identifying and providing options to solve service gaps for Canadian women entrepreneurs.

Note: While this risk has been captured in relation to the core responsibility 'People, Skills and communities', the potential impact of this risk could be experienced within ISED's other two core responsibilities.

### Planned results\*

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2015–16 Actual results	2016–17 Actual results	2017–18 Actual results
Canada has a highly skilled workforce that is equipped for jobs in an innovative and high-growth economy	Percentage of professional, science and technology-related jobs in Canada's economy (Note 1)	40%	December 31, 2025†	33% (2015)	34% (2016)	34% (2017)

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2015–16 Actual results	2016–17 Actual results	2017–18 Actual results
	Number of science, technology, engineering and mathematics graduates in Canada	175,000	December 31, 2025	114,771 (2015) (Note 2)	121,791 (2016)	Not available
	Number of Canadians that receive digital and coding skills training and development opportunities through ISED programs	500,000	December 31, 2019†	214 (Note 3)	270 (Note 3)	281,403 (Note 3)
Canadian communities are connected to and use digital infrastructure	Percentage of population with access to ultrafast broadband	80% (at 1 Gbps)	December 31, 2020†	100Mbps: 75% (2015) 1Gbps: N/A	100 Mbps: 83% (2016) 1 Gbps: 40% (2016)	100 Mbps: 84% (2017) 1 Gbps: 50% (2017)
	Percentage of households with an Internet connection (including across underserved individuals, such as low-income)	100%	December 31, 2025†	86.9% (2015)	87.4% (2016)	89% (2017)
Canada's entrepreneurs represent all segments of Canadian society	Percentage of small and medium-sized enterprises that are majority-owned by women, Indigenous people, youth, visible minorities and persons with disabilities	Women: 25% Indigenous people: 1.6% Youth: 17% Visible minorities: 14% Persons with disabilities: 0.6%	December 31, 2025†	Not available	Not available	Women: 15.6% Indigenous people: 1.4% Youth (under 40): 15.8% Visible minorities: 12.2% Persons with disabilities: 0.5% (Note 4)



Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2015–16 Actual results	2016–17 Actual results	2017–18 Actual results
	Number of small and medium-sized enterprises supported by ISED programs, including those that are majority-owned by women, Indigenous people, youth, visible minorities and persons with disabilities	TBD (Note 5)	TBD (Note 5)	Not available	Not available	Not available

\* In 2019-20, ISED is planning to review its Departmental Results Framework and track additional results indicators, such as measures related to the number of young entrepreneurs and start-ups supported, to capture the evolving nature of the Department's programs.

† The date to achieve this target is linked to Canada's Innovation and Skills Plan Charter.

Note 1: The source for this indicator is Statistics Canada's Labour Force Survey. To maintain consistency with previous Departmental Results Reports and align with international comparisons against member countries of the Organization for Economic Co-operation and Development, the professional, science and technology-related jobs indicator includes 12 occupational categories, including professional occupations in natural sciences, health and social science as well as technical occupation and certain administrative personnel.

Note 2: UNESCO's International Standard Classification of Education (ISCED) is the reference classification for organizing education programs and related qualifications by education levels and fields. Data in this table is based on ISCED 2011. Statistics Canada's education indicator definitions, categories and methodologies have been aligned with those of the ISCED 2011 to allow standardized and comparable statistics. Therefore, the figures already used in ISED's previous Departmental Results Reports, which were based on the Pan-Canadian Education Indicators Program (PCEIP), may differ with the figures currently available.

Note 3: Results for 2015-16 and 2016-17 are for the Technical Work Experience Program (TWEP – now known as the Computers for School Intern (CFSI) Program) only. Going forward, this indicator will measure the number of Canadians receiving digital skills training through CanCode (starting with 2017-18 results), Digital Skills for Youth and the Digital Literacy Exchange Program (both starting with 2018-19 results), as well as CFSI. Results indicate the total number of participants across programs and may count certain participants more than once if the same individuals participated in more than one training opportunity.

Note 4: The 2017-18 data results for this indicator are provided from a survey conducted every three years. The last survey data was released in November 2018 and covers the year 2017. For the results on youth specifically, 1.7% of SMEs have primary decision makers younger than 30, and 14.1% have primary decision makers between 30 and 39 (Source: Survey on Financing and Growth of SMEs, 2017). The 2017-18 results presented in the table align with the Futurpreneur definition of youth, which is between 18 and 39.

Note 5: ISED is implementing an integrated data strategy, which will help address the gap for department-wide detailed program data. Baseline data and a target will be available in 2020-21.

## Budgetary financial resources (dollars)

2019–20 Main Estimates	2019–20 Planned spending	2020–21 Planned spending	2021–22 Planned spending
453,557,392	453,557,392	279,038,357	186,246,291

The decrease between 2019-20 and 2021-22 Planned Spending is mainly related to the sunsetting of the Connect to Innovate Program.

## Human resources (full-time equivalents)

2019–20 Planned full-time equivalents	2020–21 Planned full-time equivalents	2021–22 Planned full-time equivalents
186	185	185

Note: In the tables above, the Main Estimates, Planned spending and Full-time equivalents figures exclude Budget 2019 announcements. More information on Budget 2019 items will be provided in the Departmental Results Report as applicable.

**Name of Core Responsibility**

Science, Technology, Research and Commercialization

**Description**

Support and enable business-led investment and strategic collaborations for leading-edge technology development and commercialization; maintain and strengthen Canada's research excellence, including support for fundamental science, experimentation and exploration to address global challenges.

**Planning highlights**

<b>Departmental Result:</b> World-leading superclusters are grown in Canada
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The Innovation and Skills Plan is creating new partnerships that build on Canada's innovation strengths to bridge the gaps from science, to commercialization, to investment and scale up. To accomplish this, ISED is supporting the [Innovation Superclusters Initiative \(ISI\)](#)<sup>xv</sup> to grow clusters – dense areas of business activity containing large and small companies, as well as post-secondary and other research institutions – into business-led innovation superclusters. Five of Canada's most promising clusters were selected in February 2018 to receive funding under the \$950 million Initiative. The Initiative is projected to create more than 50,000 jobs and grow Canada's GDP by more than \$50 billion over the next 10 years.

In 2019-20, ISED will administer and monitor the contribution agreements that have been signed with each supercluster. ISED investments will be matched dollar-for-dollar by private sector partners and will encourage the superclusters to consider gender balance and impacts in the allocation of funds under the program. ISED will invest up to nearly \$230 million over five years in the [Ontario-based Next Generation Manufacturing Supercluster \(NGen\)<sup>xvi</sup>](#). This will allow NGen to move forward with activities to build up next-generation manufacturing capabilities, such as advanced robotics and 3D printing. Investments of up to nearly \$230 million over five years will also be made in the [Quebec-based AI-Powered Supply Chains Supercluster \(SCALE AI\)<sup>xvii</sup>](#). SCALE AI brings the retail, manufacturing, transportation, infrastructure, and information and communications technology sectors together to build intelligent supply chains through artificial intelligence and robotics.

The [Atlantic Canada-based Ocean Supercluster<sup>xviii</sup>](#) will receive ISED investments of up to nearly \$153 million over five years and will harness emerging technologies to strengthen Canada's ocean industries, such as marine renewable energy, fisheries, aquaculture, oil and gas, defence, shipbuilding and transportation. ISED will also invest up to nearly \$153 million in two other superclusters. The activities of the [Prairie-based Protein Industries Canada Supercluster<sup>xix</sup>](#) will help Canada increase the value of key crops in premium markets and meet the growing demand for plant-based meat alternatives internationally. The [British Columbia-based Digital Technology Supercluster<sup>xx</sup>](#) will work to unlock the potential of data using augmented reality, cloud computing and other cutting-edge technologies to improve service delivery and efficiency in the natural resource, precision medicine and manufacturing sectors.

These business-led superclusters were selected for their potential to build world-leading innovation ecosystems that will advance research and development, solve complex challenges, drive economic growth, and develop and attract top talent.

<b>Departmental Result:</b> Canadian businesses invest more in research and development
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Business expenditure on research and development (BERD) is a key indicator of private sector commitment to innovation. In recent years, Canada has fallen behind in annual rankings of BERD relative to other OECD countries and key trading partners, such as the United States and the European Union. ISED supports collaborations between the private sector and post-secondary institutions to grow BERD. The above-mentioned co-investments with industry on Innovation Superclusters are an important part of plans to grow BERD. Under the ISI, business-led innovation and technology leadership will address important industrial challenges and boost productivity and competitiveness in sectors of economic strength.

In 2019-20, ISED's work to foster collaboration and exchanges between the higher education sector and businesses will also provide other forms of support to businesses as they advance and commercialize new technological solutions in key sectors. This includes the ongoing monitoring

and implementation of contributions to third-party research organizations that help deliver a wide range of innovation-related research activities across Canada, such as the Centre for Drug Research and Development and the Perimeter Institute.

**Departmental Result:** Canada has world-leading research capacity

Budget 2018 announced a historic investment of nearly \$4 billion over five years in research and in the next generation of scientists. Investments include a focus on empowering more women, Indigenous peoples and those otherwise underrepresented in research to pursue a career in the sciences. Priorities of Canada's vision for science and research also include strengthening science and evidence-based decision making and ensuring better collaboration between government and academia.

ISED's planned results in 2019-20 will closely align with the vision's priorities and its recognition of the importance of science and research to improve the well-being of Canadians. ISED will support Canada's Chief Science Advisor (CSA) in her role to improve the availability of scientific analyses to the public and its consideration in government decision-making. In 2019-20, ISED will support the CSA in establishing a network of departmental science advisors across federal departments and agencies, furthering horizontal work on the federal science workforce and science infrastructure, and on cross-cutting files, including micro-plastics and artificial intelligence.

In collaboration with the Treasury Board Secretariat and the Professional Institute for the Public Service of Canada, the CSA developed the [Model policy on scientific integrity<sup>xxi</sup>](#). The model policy's goals include encouraging federal scientists to speak freely about their work and increasing the reliability of, and public trust in, government science and research. In 2019-20, collaboration with other government departments will continue, alongside implementation of ISED's own science integrity policy, led by the Communications Research Centre.

ISED will administer the agreement to provide ongoing, stable funding to the not-for-profit Canada Foundation for Innovation. The Foundation puts cutting-edge tools in the hands of Canada's scientists, researchers and students and ensures they have access to state-of-the-art labs and facilities. In 2019-20, ISED will continue to work with the Foundation as it launches new competitions that address the research infrastructure needs of Canadian researchers. Work will also take place in support of the \$2.8 billion Federal Science and Technology Infrastructure Initiative that will renew federal laboratories to ensure they remain cutting-edge.

In alignment with Budget 2018 investments, ISED continues to implement measures that address the recommendations of the independent Panel on Canada's Fundamental Science Review: The establishment of the [Canada Research Coordinating Committee \(CRCC\)<sup>xxii</sup>](#) being a critical first step. ISED will continue to participate in and support the CRCC in its mandate to achieve greater

harmonization and coordination of the policies and programs of the granting agencies and the Canada Foundation for Innovation.

ISED will also ensure secretariat support to the Council on Science and Innovation (CSI), a new, more transparent advisory body that replaces the Science, Technology and Innovation Council. The CSI will report jointly to the Minister of Innovation, Science and Economic Development and the Minister of Science and Sport. It will provide independent, expert policy advice to support government efforts to strengthen the science and research ecosystem and stimulate innovation across the economy.

Furthermore, ISED will advance the Digital Research Infrastructure (DRI) Strategy to deliver more open and equitable access to advanced computing and big data resources to researchers across Canada. In 2019-20, ISED will negotiate contribution agreements to support advanced research computing and DRI network operations. To ensure the DRI ecosystem supports world-leading research, the Department will also determine how best to incorporate the roles currently played by the Canada Foundation for Innovation, Compute Canada and CANARIE, to provide for more streamlined access for Canadian researchers.

Artificial intelligence (AI) is one important field of research that has the potential to improve the life of every Canadian. To ensure that the benefits of AI are maximized and its risks mitigated, ISED will continue to shape the AI policy landscape. On a domestic level, ISED will establish a Government of Canada Advisory Council on AI to advise on how Canada can leverage its existing leadership in AI innovation for the socio-economic benefit of all Canadians. ISED will also continue to support CIFAR in leading the Pan-Canadian Artificial Intelligence Strategy with the aim of attracting world-class talent in AI research and training, fostering increased collaborations in Canada, and enhancing Canada's international profile as a destination for AI investment and innovation.

Similarly, on an international level, ISED will continue to play an active leadership role in discussions on AI with international partners in the context of the G7, G20, OECD, Digital9, and Open Government Forum and Summit. ISED will lead the government's work with France to establish the International Panel on Artificial Intelligence (IPAI), a key outcome of the [Canada-France Statement on Artificial Intelligence](#)<sup>xxiii</sup>. The IPAI will become a global point of reference for understanding and sharing research results on AI issues and best practices, as well as convening international AI initiatives. By relying on the expertise of the scientific community, industry, civil society and governments, and by providing a mechanism for sharing multidisciplinary analysis, foresight and coordination capabilities in the area of AI, the International Panel on AI will conduct analysis in order to guide AI policy development and the responsible adoption of AI, grounded in human rights.

## Key risk

The experimental nature of research and development (R&D) and its funding structure, as well as a complex delivery model involving multiple partners, could impact ISED’s ability to foster investment and demonstrate results within expected timeframes.

To mitigate this risk, ISED will encourage stakeholder communications, and the monitoring of performance in order to manage expectations. For example, in 2019-20, ISED efforts under the Innovation Superclusters Initiative (ISI) will include facilitating efficient collaborations between the private sector and post-secondary institutions in the selected Innovation Superclusters’ sectors of economic strength and supporting ISI strategic co-investments within the industry, which are an important part of plans to grow business expenditures on R&D.

Note: While this risk has been captured in relation to the core responsibility ‘Science, Technology, Research and Commercialization’, the potential impact of this risk could be experienced within the other two core responsibilities.

## Planned results

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2015–16 Actual results	2016–17 Actual results	2017–18 Actual results
World-leading superclusters are grown in Canada	Number of new firms created (in targeted areas)	TBD (Note 1)	March 31, 2023	Not available	Not available	Not available
	Number of anchor firms (in targeted areas)	TBD (Note 2)	March 31, 2023	Not available	Not available	Not available
	Value of investments leveraged to develop clusters as a result of ISED program funding (per dollar invested)	\$1.20	March 31, 2023	Not available	Not available	Not available
Canadian businesses invest more in research and development	Business Expenditure in Research and Development (in dollars)	\$30 billion	December 31, 2025†	\$18.0 billion (2015) (Note 3)	\$18.0 billion (2016) (Note 3)	\$17.6 billion (2017, preliminary)
	Percentage of companies engaged in collaborations with higher	6% (Note 4)	December 31, 2025†	Not available (Note 4)	Not available (Note 4)	3.2% (2015-2017) (Note 4)

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2015–16 Actual results	2016–17 Actual results	2017–18 Actual results
	education institutions					
	Value of Business Expenditure in Research and Development by firms receiving ISED program funding (in dollars)	TBD (Note 5)	TBD (Note 5)	Not available	Not available	Not available
Canada has world leading-research capacity	Canada's rank among Organisation for Economic Co-operation and Development nations on the citation score of science research publications	10th	December 31, 2025†	14th (2015) (Note 3)	16th (2016)	15th (2017)
	Number of co-authored publications between federal and non-federal scientists	2,479	December 31, 2020	2,371 (2015)	2,493 (2016)	2,374 (2017)
	Value of investments leveraged in science and research infrastructure as a result of ISED program funding (per dollar invested)	\$1.00	March 31, 2020	N/A	\$1.50 (Note 6)	\$1.50 (Note 6)

† The date to achieve this target is linked to Canada's Innovation and Skills Plan Charter.

Note 1: The objective is for the growth rate of new firms in the targeted areas to be equal, or greater than, the average rate of firm creation experienced across the economy at the national level; a specific target will be set in 2019-20 when baseline data is available.

Note 2: The objective is a 10% increase in the number of anchor firms by March 31, 2023; a specific target will be set in 2019-20 after the Supercluster membership lists are finalized and can be used as a baseline.



Note 3: Statistical revisions are carried out regularly in the data source for this indicator. Therefore, in this table, past years' values may differ from those published in previous ISED reports (Departmental Plan, Departmental Results Report).

Note 4: The target and values that were previously published for this indicator were based on a Statistics Canada survey that has been discontinued (Survey of Advanced Technology). The data provided for 2017-18 are based on a different, occasional, Statistics Canada survey (Survey of Innovation and Business Strategy 2017) which measures the percentage of firms that cooperate with higher education institutions on innovation activities. It covers, as a whole, years 2015 to 2017. The target for the indicator has been revised using data from the new source as the baseline.

Note 5: ISED is implementing an integrated data strategy, which will help address the gap for department-wide detailed program data. Baseline data and a target will be available in 2020-21.

Note 6: The past results for this indicator apply only to the Post-Secondary Institutions Strategic Investment Fund. Other ISED programs will start using this indicator in future years and the target may then be revised.

### Budgetary financial resources (dollars)

2019–20 Main Estimates	2019–20 Planned spending	2020–21 Planned spending	2021–22 Planned spending
935,768,418	935,768,418	887,786,163	991,291,155

The decrease between 2019-20 and 2020-21 Planned Spending is mainly related to a reprofile of funds of the Post-Secondary Institutions Strategic Investment Fund, a decrease in approved funding for Genome Canada and the sunsetting of CANARIE. This is partially offset by an increase in approved funding for the Innovation Superclusters Initiative and the Digital Research Infrastructure Strategy. The increase between 2020-21 and 2021-22 Planned Spending is mainly related to an increase in approved funding for the Canada Foundation for Innovation and the Digital Research Infrastructure Strategy.

### Human resources (full-time equivalents)

2019–20 Planned full-time equivalents	2020–21 Planned full-time equivalents	2021–22 Planned full-time equivalents
110	110	109

Note: In the tables above, the Main Estimates, Planned spending and Full-time equivalents figures exclude Budget 2019 announcements. More information on Budget 2019 items will be provided in the Departmental Results Report as applicable.



## Name of Core Responsibility

Companies, Investment and Growth

### Description

Provide support to help grow small, medium and large Canadian businesses into globally competitive, high-impact firms; ensure a fair and competitive marketplace; promote the conditions that support competitive prices and product choices, including in the telecommunications sector; simplify government programming, promote efforts to reduce red tape for businesses, putting in place the right conditions for market-driven innovation and promoting inclusive growth and an economy that works for everyone; reduce barriers to the movement of goods, services, capital and labour; grow Canada's tourism sector.

### Planning highlights

**Departmental Result:** Canada becomes a global leader in clean technologies

ISED is supporting government-wide efforts to make Canada a global leader in the growing clean technology market, which will promote the creation of good middle-class jobs for Canadians while protecting the environment.

In 2019-20, ISED will work to deepen federal, provincial, and territorial (FPT) collaboration on clean technology. Through the [Clean Growth Hub<sup>xxiv</sup>](#), ISED will continue to develop formal partnerships with provinces and territories to improve information sharing on projects in order to identify FPT programs and services that can best support Canadian clean technology producers and users. The Clean Growth Hub, a horizontal initiative co-led by Natural Resources Canada (NRCan) and ISED in partnership with 14 departments and agencies, is a single-window service currently leveraging knowledge and expertise, as well as programs and services, from across the federal government. As of December 2018, over 750 clients have met the Hub's team of experts.

In addition to helping clean technology companies and projects identify the federal programs and services most relevant to their needs, the Hub will continue to improve federal coordination of clean technology activities and, as part of the Clean Technology Data Strategy, will publish guidelines for departments and agencies to better track and report on clean technology federal efforts, including the environmental impact of programs. Budget 2017 provided \$14.5 million over four years, to ISED and NRCan for the creation of the Clean Technology Data Strategy. The Strategy aims to understand the impact of clean technology on the economy, improve knowledge in the private sector and stakeholder communities, and help inform future government decision-making. In 2019-20, new data on impact of clean technology on the economy – including regional breakdowns – will be released through Statistics Canada and the Clean Growth Hub.

Through Sustainable Development Technology Canada, ISED will also continue to help Canadian companies develop and deploy globally competitive clean technology solutions that address environmental challenges related to climate change, clean air, clean water and clean soil.

**Departmental Result:** Canadian companies are globally competitive and achieve high growth

The new Strategic Innovation Fund (SIF) – one of the first-of-their-kind programs under the Innovation and Skills Plan – reflects an experimental approach with government and innovators as partners to develop novel solutions to cross-cutting challenges with broad commercial potential and public benefits for Canada. In 2019-20, SIF will be supporting new collaborative networks and consortia following a competitive process in two important areas: Data Application in the Health and Bio-sciences sector, and Automation and Digital Technologies for the Agriculture and Agri-food sector.

SIF will continue to support [steel and aluminium projects](#)<sup>xxv</sup> based on the \$250 million announced on June 29, 2018. This will contribute to the capability and efficiency of Canadian producers while securing benefits to the Canadian economy. Work will continue on SIF projects that relate to Low Earth Orbit (LEO) satellites and next generation rural broadband as part of the \$100 million funding over five years that Budget 2018 dedicated to reach the most remote areas of Canada. Furthermore, as presented in the 2018 Fall Economic Statement, the Government has proposed to provide an additional \$800 million over 5 years to the Fund, with \$100 million to support the forest sector. With the new funding, SIF will continue to support innovative investments that accelerate business innovation across the country in all economic sectors.

As the single-largest purchaser of goods and services, the federal government is also using its procurement power in a new way to help Canadian small businesses commercialize their ideas. Through ISED's [Innovative Solutions Canada \(ISC\)](#)<sup>xxvi</sup>, over \$100 million is being invested by 20 departments and agencies to inspire Canadian small businesses to solve complex government challenges through innovative ideas. The program's outreach and engagement activities are encouraging submissions from businesses owned by women, Indigenous peoples, youth and visible minorities. ISED will also continue work to operationalize the consolidation of ISC and the existing Build in Canada Innovation Program, announced in Budget 2018 as part of the streamlining of the federal government's innovation program suite. The consolidated program will have two streams, a challenge stream and a testing stream, offering enhanced support to Canadian innovators and more opportunities for government departments and agencies to access, support the development of, and test a broad range of innovations.

ISED is also supporting the [Venture Capital Catalyst Initiative \(VCCI\)](#)<sup>xxvii</sup>, another key program stemming from the Innovation and Skills Plan and which complements the work of the Business Development Bank of Canada (BDC). Venture capital gives high growth-potential companies the

opportunity to develop their ideas into marketable products, creating good middle-class jobs across the country. ISED collaborated with BDC to implement Stream 1 and 2 of the VCCI, building a portfolio of large funds-of-funds and alternative models that strengthens and broadens the Canadian venture capital ecosystem. In 2019-20, ISED will run an application and selection process for Stream 3 of VCCI, which is focussed on making investments in clean technology.

In addition, ISED will continue to enhance the [Accelerated Growth Service's \(AGS\)](#)<sup>xxviii</sup> collaborative cross-government client service model to ensure Canadian firms with high growth potential are provided with advice and guidance to readily access the most relevant programs to help them innovate and grow. In 2019-20, the AGS will continue with enrolment, implementing process improvements with the addition of new Innovation Advisors, and leveraging new and existing partnerships across all levels of government and non-governmental organizations to further expand the AGS offering (including assistance in navigating procurement and regulatory challenges).

ISED will also continue to support the six [Economic Strategy Tables](#)<sup>xxix</sup> and the interdepartmental network that underpins their work. Chaired by industry leaders, the Tables represent a new model for industry-government collaboration to drive innovation and long-term economic growth in six high-potential sectors: advanced manufacturing, agri-food, clean technology, digital industries, health/bio-sciences and resources of the future. In 2019-20, ISED will support the whole-of-government response to implement recommendations emerging from the [Economic Strategy Tables' September 2018 report](#)<sup>xxx</sup>, as well as the renewal of CEO membership on the Tables and the launch of a new meeting cycle to jointly tackle complex issues to accelerate Canada's growth potential.

Work under Canada's new National Cyber Security Strategy will also support small business growth – in this case, from a cyber resilience perspective. ISED, in collaboration with Communications Security Establishment and Standards Council of Canada, will implement a five-year \$28.4 million cyber certification program to help small and medium-sized enterprises (SMEs) protect themselves against cyber threats. ISED's work in 2019-20 will include the launch of a pilot phase during which time SMEs will certify in principle while the national standard is developed. By the end of 2019-20, it will have established a recognizable and credible brand for cyber security in Canada that participating firms can use to demonstrate they meet a baseline level of cyber security. This will promote trust in the digital economy and better position SMEs to compete within Canada and globally.

ISED is also responsible for the administration of the Industrial and Technological Benefits (ITB) Policy, which is Canada's primary tool for leveraging economic benefits from defence and major Canadian Coast Guard procurements to create jobs and economic growth for Canadians. In 2019-20, ISED will continue to apply the ITB Policy to drive economic growth and innovation in Canada. Moreover, on a procurement-by-procurement basis, the Department will seek to foster

the development of key industrial capabilities that are important to Canada for their future impact on Canada's sovereignty and national security and for which significant economic and commercial benefit may be derived. The Department will also continue to apply the National Shipbuilding Strategy Value Proposition to ensure benefits that support a sustainable Canadian marine industry over the long-term.

<p><b>Departmental Result:</b> Canada is a location and destination of choice for investment, growth and tourism</p>
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ISED is supporting government-wide efforts through Invest in Canada to attract foreign direct investments that enhance Canada's competitiveness and economic strength. ISED will work with Invest in Canada and other government departments to implement initiatives that encourage investments that are beneficial to Canada. ISED will also continue the timely processing of foreign investment notifications and applications for review filed by foreign investors under the *Investment Canada Act*.

Free trade agreements contribute to the government's goal of attracting job-creating investments. ISED will support next steps on trade mechanisms such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, the Canada-European Union Comprehensive Economic and Trade Agreement and the recently completed negotiations towards a modernized trade agreement for North America – the Canada-United States-Mexico Agreement (CUSMA). In 2019-20, the Department will also support the ongoing negotiations with MERCOSUR and the Pacific Alliance.

The Department will also continue helping Canadian firms to diversify their markets and leverage access to markets abroad made possible through free trade agreements. Exporting enables businesses to seek out new growth opportunities and increase sales and revenues. As of 2017, about 12% of SMEs exported goods or services, and accounted for almost 42% of the total value of Canadian goods exports. While the percentage of total SMEs exporting is similar to other G7 countries, ISED is taking action to ensure that high-performing SMEs can scale-up and grow in diverse export markets.

This includes ISED's efforts to support Canada's Export Diversification Strategy and Invest in Canada initiatives, and the government's objective to make Canada a more globally connected economy and increase Canada's overseas exports by 50% by 2025. In 2019-20, ISED will launch the \$10 million Mobilizing SMEs to Export initiative announced in the 2018 Fall Economic Statement to help Canadian SMEs access new markets abroad and realize their export potential. The initiative provides export readiness and export capacity building support targeted to businesses that have a high potential to export products and services in markets where Canada has gained a competitive advantage under recently implemented free trade agreements. ISED

will fund Trade Accelerator Program delivery agents to expand the number of sessions offered to SMEs across Canada.

Market diversification will also be supported by the new federal tourism strategy. In 2019-20, ISED will pursue work with Canadians, stakeholders, provincial, territorial and other levels of government, Indigenous stakeholders, and LGBTQ2 groups, to implement the strategy with the core objective of creating new opportunities and jobs for the middle class in the tourism sector across Canada, which currently accounts for 1.8 million jobs in urban and rural communities. This work will benefit from advice received from the [Advisory Council on Jobs and the Visitor Economy<sup>xxxix</sup>](#). The new strategy will guide ISED's work with all partners to help develop Canadian communities into tourist destinations.

Canada is in a global innovation race with many countries seeking to unlock the potential of a digital and data-driven world. The government recognizes that digital transformation is essential to remain globally competitive and continue to grow Canada's economy, attract investment, and create middle-class jobs for Canadians. From June to October 2018, ISED held [National Digital and Data Consultations<sup>xxxix</sup>](#) to hear from Canadians, businesses and organizations on how Canada should position itself to benefit in this digital and data economy. The consultations will inform the next phase of Canada's Innovation and Skills Plan, a plan that will make Canada a world leader in innovation and enable technology adoption, trust and inclusiveness. Through the consultations we sought to better understand how Canada can drive innovation, prepare Canadians for the future of work, and ensure they have trust and confidence in how their data is used.

Intellectual property (IP) is integral to growing firms and fuelling innovation in today's technology-driven economy. In 2019-20, the Department will continue delivering key elements of [Canada's Intellectual Property Strategy<sup>xxxix</sup>](#), an investment of \$85.3M over five years announced in Budget 2018 to help Canadian businesses, creators, entrepreneurs and innovators understand and access intellectual property (IP). The Department will develop and propose new regulations pursuant to the passage of the legislative components of the Strategy to further improve the framework. ISED will also launch an IP Marketplace, a one-stop shop for businesses, entrepreneurs and innovators to search for, access and acquire public sector IP held by government and academia. Innovation Canada has launched and is growing a new IP Centre of Expertise, an internal facing government program designed to provide strategic IP guidance and support to government innovation programs on program design, operational management, policy guidance, and training. The IP Centre aims to create strategic alignment on IP across government.

Initiatives to engage innovators across Canada are also being delivered in partnership with RDAs. Additionally, ISED will fully deploy new programs to provide targeted grants to develop and grow IP legal clinics and support Indigenous organizations. Through a pilot project, the

Department will support the creation of a patent collective designed to support member firms with IP intelligence and services.

In support of implementation of the IP Strategy, the Canadian Intellectual Property Office (CIPO) will continue its IP awareness and education program. Key priorities will be to streamline access to IP information and continue to provide businesses and innovators with IP resources to better acquire, manage and leverage their IP assets through a combination of training and tools, including fact sheets, checklists, web content and e-learning modules.

Through CIPO, the Department will also publish in 2019-20 amendments to the *Patent Rules* in the *Canada Gazette*, Part II, in preparation for ratification of the *Patent Law Treaty*. The amendments align with the Innovation and Skills Plan and IP Strategy, ensuring that Canada's patent regime is modern, robust and supports Canadian innovation. In addition, three Trademark treaties – the Nice Agreement, the Singapore Treaty, and the Madrid Protocol – will come into force in June 2019. Aligning Canada's trademark regime with international standards and practices will help increase competitiveness, and reduce entry barriers for foreign firms, leading to increased investment opportunities in Canada.

ISED assumes various other regulatory functions that play a critical role in promoting a fair, efficient and competitive marketplace centred on principles of integrity, consumer trust and confidence. ISED will build on this foundation to support government-wide efforts to promote an agile regulatory system that is efficient and supports innovation, including modernizing federal regulations and encouraging regulators to consider competitiveness in regulatory design.

ISED is notably responsible for managing radiofrequency in Canada and through collaboration with the International Telecommunication Union to maximize its economic and social benefits for all Canadians, including those in rural and remote regions – a key regulatory role in today's digital economy. In 2019-20, ISED will continue to address spectrum demand to support existing services and the deployment of next generation wireless services such as 5G in a way that encourages a competitive wireless landscape while ensuring, alongside partners, the resiliency of Canada's telecommunications infrastructure. The Department will also complete the 600 MHz auction and continue work towards the auctions for the 3500 MHz band and millimeter wave spectrum, planned for 2020 and 2021, respectively.

So that Canadians realize the benefits of wireless enabled technologies, ISED, through the Communications Research Centre Canada, will continue its Grand Challenge research to fundamentally change the global use and management of the wireless spectrum. This evidence-based approach will enable the Department to sustainably manage the spectrum and open up unused frequencies for commercial uses.

Jointly with the Department of Canadian Heritage, ISED will continue to support the expert Panel reviewing the *Broadcasting Act*, *Telecommunications Act* and *Radiocommunication Act*.

The [Broadcasting and Telecommunications Legislative Review](#)<sup>xxxiv</sup> will consider how to modernize Canada’s suite of communications legislation to ensure Canadians are well equipped to adapt to and thrive in the changing digital environment. The Panel will publish a “What we heard” report based on its consultations in spring 2019, and its final report by January 2020.

Through the Competition Bureau, the Department contributes to the prosperity of Canada by ensuring that markets are fair, open and competitive for businesses and consumers. In 2019-20, the Bureau will enforce Canada’s competition laws, including outreach, and advocacy, where it will have the highest impact for Canadians. The Bureau will continue to promote competition and share its expertise to achieve pro-competitive policies, regulatory outcomes and innovation in Canada, investing in its people by ensuring they have the right tools and processes in place to be an agile organization that delivers tangible results for Canadians. In 2019-20, the Bureau will complete a market study to better understand the competitive dynamics of Canada’s broadband Internet services sector. The Bureau has already received record-breaking input from Canadians and businesses alike through stakeholder consultations to learn Canadians’ habits and experiences with Canada’s Internet service providers. This includes understanding the factors that motivate consumer choice: the driver of competition and innovation. The Bureau expects to publish the results by June 2019 to make recommendations to regulators, where appropriate, that promote competition through the right balance of market forces and regulation.

Through Measurement Canada (MC), ISED is also responsible for ensuring the integrity and accuracy of measurement in the Canadian marketplace. In 2019-20, MC will undertake a two-year review of its legislation and regulations with a focus on preparing for the future of technology and commercial practices, enabling innovation and ensuring an efficient regulatory system that supports small businesses. This includes building digital service capacity and improving client service delivery. In addition, through the mission of the Office of the Superintendent of Bankruptcy, the Department will review and enhance its capacity to ensure efficient, effective and modern enforcement of Canada’s insolvency system, and engage with its partners and provide meaningful and timely information to help ensure that stakeholders have access to relevant and necessary information to address debt challenges.

**Departmental Result:** Canadian innovators have simplified access to tools and support

ISED is currently undertaking a number of initiatives to make it easier for small businesses to interact with government and enable more efficient digital self-service. These efforts align with the new whole-of-government approach to business innovation programs, which reduces the number of programs by two-thirds and offers a simplified suite of programs, featuring four flagship programs – the National Research Council-Industrial Research Assistance Program,



Regional Development Agencies, the Strategic Innovation Fund, and the Trade Commissioner Service – that correspond to different firm growth stages.

ISED’s [Innovation Canada<sup>xxxv</sup>](#) platform plays a key role in supporting this commitment by serving as a single window for Canadian businesses to discover the most relevant programs and services to help them grow, from across all levels of government – all in under three minutes. In 2019-20, ISED will develop enhancements to the Innovation Canada platform to enable businesses to receive updates on new funding, advice, partnering opportunities based on their needs and interests, and create better connections between programs and prospective applicants.

### Innovation Canada platform: experimenting with artificial intelligence

ISED is testing artificial intelligence (AI) by using an AI model in the Innovation Canada Web platform. Companies visiting the platform submit a user profile and the AI model assists in returning a ranked list of programs and services that match that profile. Interaction data from users’ submissions is used to train a neural network that predicts the level of interest between any user and more than 1,300 programs and services. The initiative is significantly improving service delivery by providing companies with fast, efficient and timely access to the most relevant programs and services, resulting in enhanced productivity.

In collaboration with provincial and territorial (PT) partners, ISED is making significant progress on additional initiatives that will help align business support programs across governments and support economic growth. One key component is ISED’s work with provincial and territorial (PT) partners to digitally connect all of Canada’s business registries with a multi-jurisdictional registry access service. In Canada, as the incorporation and registration of companies are possible at the federal or the PT level, there are thirteen PT business registries and a federal corporate regulator. The service will allow businesses to easily access corporate registration information from these PT registries as well as Corporation Canada’s database to implement the “tell us once” approach to the extra-provincial registration process. It will also provide notifications of changes to a business’s information or status (e.g. dissolution) across registries. The beta version of Canada’s Business Registries service was launched in the fall of 2018 and in 2019-20 ISED will introduce the capability for provinces to deploy “tell us once” registration services and real time notification.

The [BizPaL<sup>xxxvi</sup>](#) service also makes it easier for Canadians to find the information they need to start and grow their business by providing information on licence and permit requirements from all levels of government through an online service.

In addition, in support of the objective for better service delivery across government, ISED and the Canada Revenue Agency (CRA) are adopting the Business Number (BN) as a standard identifier for departmental services to businesses by April 2020. The BN is a nine-digit number issued by the CRA to identify a business. It is linked to a business’ core identification information, which can help validate a business and simplify its interaction with government.



Use of the BN across the government will allow for more experimentation of service integration and innovation towards more efficient digital self-service, leading to a “tell us once” approach. As of December 2018, ISED and 12 other departments and agencies have directly connected their business services to CRA’s BN web validation initiative. In addition, five other departments and agencies can access the BN web validation service without a direct connection through ISED’s BN Validation Look-up Tool.

Throughout 2019-20, ISED will continue to engage provincial, territorial and municipal governments to further advance collaboration and align complementary programs, to make it easier for entrepreneurs and SMEs from diverse backgrounds and industries to do business and support them as they start up and scale up.

### Key Risk

The fast and constant pace of digital and technological change could impact ISED’s ability to provide companies and entrepreneurs with an effective digital service, and to execute its regulatory role in a dynamic environment.

To mitigate this risk, ISED will strengthen its data and business intelligence capacities and seek to influence the modernization of legislative and regulatory frameworks and capabilities. For example, in 2019-20, ISED will continue working with PT partners to digitally connect Canada’s thirteen PT business registries and federal corporate regulators with a multi-jurisdictional registry access service, which will implement a “tell us once” approach to businesses’ extra-provincial registration process.

Note: While this risk has been captured in relation to the core responsibility ‘Companies, Investment and Growth’, the potential impact of this risk could be experienced within the other two core responsibilities.

## Planned results\*

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2015–16 Actual results	2016–17 Actual results	2017–18 Actual results
Canada becomes a global leader in clean technologies	Value of Canada's exports of clean technologies (in dollars)	\$15.6 billion (Note 1)	December 31, 2025†	\$7.6 billion (2015) (Note 1)	\$8.1 billion (2016) (Note 1)	\$9.0 billion (2017) (Note 1)
	Clean technology employment in Canada (in numbers)	190,000	December 31, 2025†	181,646 (2015) (Note 1)	181,978 (2016) (Note 1)	183,265 (2017) (Note 1)
	Value of investments leveraged in clean technologies as a result of ISED program funding (per dollar invested)	\$2.00 (Note 2)	March 31, 2020	\$2.80 (as of March 31, 2016)	\$2.80 (as of March 31, 2017)	\$2.80 (as of March 31, 2018)
Canadian companies are globally competitive and achieve high growth	Number of high-growth firms	28,000	December 31, 2025†	14,330 (2015)	Not available (Note 3)	Not available
	Value of Canada's goods and services exports (in dollars)	\$820 billion (Note 1)	December 31, 2025†	\$628 billion (2015) (Note 1)	\$631 billion (2016) (Note 1)	\$664 billion (2017)
	Revenue growth rate of firms supported by ISED programs	ISED-supported firms grow faster than the national average	March 31, 2020	Not available	Not available	Not available (Note 4)
Canada is a location and destination of choice for investment, growth and	Total Business Investment in Canada (in dollars)	\$260 billion	December 31, 2025†	\$231 billion (2015) (Note 5)	\$211 billion (2016) (Note 5)	\$216 billion (2017) (Note 5)

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2015–16 Actual results	2016–17 Actual results	2017–18 Actual results
	Spending by international visitors to Canada (in dollars)	\$25 billion	December 31, 2021	\$19.8 billion (2015) (Note 1)	\$20.6 billion (2016) (Note 1)	\$21.3 billion (2017)
	Number of international overnight visitors to Canada	25,973,134	December 31, 2021	18,000,000 (2015)	20,000,000 (2016)	20,800,000 (2017)
	Turn-around times for patent applications filed in Canada, with a request for examination	31.6 months	March 31, 2020	38.9 months	36.7 months	33.6 months
Canadian innovators have simplified access to tools and support	Canada's ranking on the World Bank's Ease of Doing Business Index	10th	December 31, 2025	22nd (2016)	18th (2017)	22nd (2018)
	Percentage of ISED priority services that meet published service standards	90% (Note 6)	December 31, 2020	89%	96%	Not available

\* In 2019-20, ISED is planning to review its Departmental Results Framework and track additional results indicators, such as: measures related to the impact of Canada's Export Development Strategy in mobilizing Canadian small and medium-sized businesses to export, to capture the evolving nature of the Department's programs; measures to ensure there is a No Wrong Door approach to accessing government programs and services; and measures related to the customer service provided to small businesses interacting with the Department.

† The date to achieve this target is linked to Canada's Innovation and Skills Plan Charter.

Note 1: Statistical revisions are carried out regularly in the data source for this indicator. Therefore, in this table, past years' values may differ from those published in previous ISED reports (Departmental Plan, Departmental Results Report).

Note 2: The target and results data for this indicator apply only to Sustainable Development Technology Canada (SDTC). ISED will formally review the target in 2019-20 to ensure the Department maintains rigorous performance levels to achieve outcomes.

Note 3: A new data strategy and methodology to track the number of new high growth firms created in Canada from the baseline established in 2014-15 is being developed with Statistics Canada, with new data and results expected in 2019-20.

Note 4: ISED is implementing an integrated data strategy, which will help address the gap for department-wide detailed program data. Baseline data and a target will be available in 2020-21.

Note 5: This indicator measures the “non-residential structures, machinery and equipment” and “intellectual property products”, both of which fall under the “Business gross fixed capital formation” of Statistics Canada’s Gross Domestic Product (GDP) (expenditure-based). Statistical revisions are carried out regularly in the Canadian System of Macroeconomic Accounts (CSMA) in order to incorporate the most current information from censuses, annual surveys, administrative statistics, public accounts, etc. Effective October 2018, GDP at basic prices uses 2012 instead of 2007 as the reference year for its real estimates (adjusted for inflation). Therefore, in this table, past years’ values may differ from those published in previous ISED reports (Departmental Plan, Departmental Results Report).

Note 6: ISED’s list of priority services is revised annually and this indicator is therefore subject to fluctuating results. The target is set to achieve reasonable performance levels and aligns with the results data that is currently available.

### Budgetary financial resources (dollars)

2019–20 Main Estimates	2019–20 Planned spending	2020–21 Planned spending	2021–22 Planned spending
1,262,721,251	1,262,721,251	1,021,969,830	933,365,677

The decrease between 2019-20 and 2020-21 Planned Spending is mainly related to a decrease in approved funding for the IP Strategy (Patent Collective Pilot Program) and the Strategic Innovation Fund (SIF) and legacy programs that are now consolidated under SIF: Automotive Innovation Fund (AIF), Automotive Supplier Innovation Program (ASIP), Strategic Aerospace and Defence Initiative (SADI) and Technology Demonstration Program (TDP). This decrease is partially offset by an increase in the approved funding for the Sustainable Development Technology Fund.

The decrease between 2020-21 and 2021-22 Planned Spending is mainly related to a decrease in approved funding for the SIF and legacy programs that are now consolidated under SIF: AIF, ASIP, SADI and TDP.

### Human resources (full-time equivalents)

2019–20 Planned full-time equivalents	2020–21 Planned full-time equivalents	2021–22 Planned full-time equivalents
3,395	3,440	3,449

Note: In the tables above, the Main Estimates, Planned spending and Full-time equivalents figures exclude Budget 2019 announcements. More information on Budget 2019 items will be provided in the Departmental Results Report as applicable.

Financial, human resources and performance information for ISED’s Program Inventory is available in the [GC InfoBase](#).<sup>xxxvii</sup>

## Internal Services

### Description

Internal Services are those groups of related activities and resources that the federal government considers to be services in support of Programs and/or required to meet corporate obligations of an organization. Internal Services refers to the activities and resources of the 10 distinct services that support Program delivery in the organization, regardless of the Internal Services delivery model in a department. These services are:

- Management and Oversight Services
- Communications Services
- Legal Services
- Human Resources Management Services
- Financial Management Services
- Information Management Services
- Information Technology Services
- Real Property Management Services
- Materiel Management Services
- Acquisition Management Services

### Budgetary financial resources (dollars)

2019–20 Main Estimates	2019–20 Planned spending	2020–21 Planned spending	2021–22 Planned spending
162,424,330	162,424,330	156,412,008	153,655,499

### Human resources (full-time equivalents)

2019–20 Planned full-time equivalents	2020–21 Planned full-time equivalents	2021–22 Planned full-time equivalents
1,604	1,604	1,604

Note: In the tables above, the Main Estimates, Planned spending and Full-time equivalents figures exclude Budget 2019 announcements. More information on Budget 2019 items will be provided in the Departmental Results Report as applicable.

## Planning highlights

ISED continues to embrace its innovation identity: how we achieve results is fundamental to effectively serving Canadians. The Department's actions will focus on three priorities, i.e. being: inclusive in developing our ideas and making decisions; agile in delivering results; and equipped to be effective. This aligns with the key areas identified by the Clerk of the Privy Council in his [Twenty-Fifth Annual Report to the Prime Minister on the Public Service of Canada<sup>xxxviii</sup>](#). ISED will be building on progress achieved in past years under the Department's Innovation 2020 and will endeavour to continue on the successful path illustrated by the announcement that ISED was one of [Canada's Top 100 Employers for 2019 and National Capital Region's Top Employers \(2019\)<sup>xxxix</sup>](#), as well as one of Canada's Best Diversity Employers for 2019.

### Inclusive

At ISED, diversity and inclusion are considered business imperatives that permeate all levels of the organization, from the very highest levels of management to frontline employees. Recent actions from the Department include the launch of a harassment prevention and resolution portal that provides employees with resources to deal with situations of potential harassment. ISED has also implemented a new model for reporting incidents of harassment and exploring options for resolving workplace issues within the Department, with the creation of an independent departmental Ombudsman for Mental Health and Employee Well-Being that reports directly to ISED's Deputy Minister. This aligns with a recommendation found in [Safe Workplaces: Starting a Dialogue and Taking Action on Harassment in the Public Service<sup>xl</sup>](#), a Deputy Minister Task Team on Harassment established by the Clerk of the Privy Council's to undertake a targeted review of the public service harassment framework and to identify actions that will better support employees.

ISED will continue to participate in training and mentorship program to develop Indigenous employees and access the Federal Internship for Newcomers Program, and partner with LiveWorkPlay to hire employees with intellectual disabilities.

The annual Public Service Employee Survey (PSES) is a key tool that the Department uses in its continuous commitment to achieving excellence. After completing its review of the 2018 PSES released in February 2019, ISED will discuss and identify priority areas for action as part of the Department's ongoing efforts to create a high-performing and inclusive workplace to build on ISED's reputation and position as an employer of choice in Canada.

### Agile

In 2019-20, ISED will begin the implementation of a departmental Integrated Data Strategy aligned with the [Government's Data Strategy<sup>xli</sup>](#), a whole-of-government approach to creating, protecting, using, managing and sharing data as a strategic asset to enable informed decisions

that lead to better outcomes and services to Canadians. This will result in improved information for evidence-based decision-making, and will support the government-wide drive for greater openness and transparency.

### **Equipped**

In support of the Clerk’s [Beyond2020](#)<sup>xlii</sup> vision for a world-class Public Service equipped to serve Canada and Canadians now and into the future, ISED has launched a department-wide Digital Office initiative to modernize ISED’s workplace and deliver new innovative capabilities. As employees increasingly use social media, mobile and digital platforms to manage their daily lives, they expect a richer array of tools to engage Canadians and deliver services. The Digital Office initiative provides employees with modern tools to do their jobs, while reducing the impact on our environment by providing alternatives to travel and reducing the use of paper. In particular, ISED will expand capabilities (e.g. equipping employees with modern, mobile tools and training) to help employees across the country stay connected, support cross-country collaboration and streamline their work.

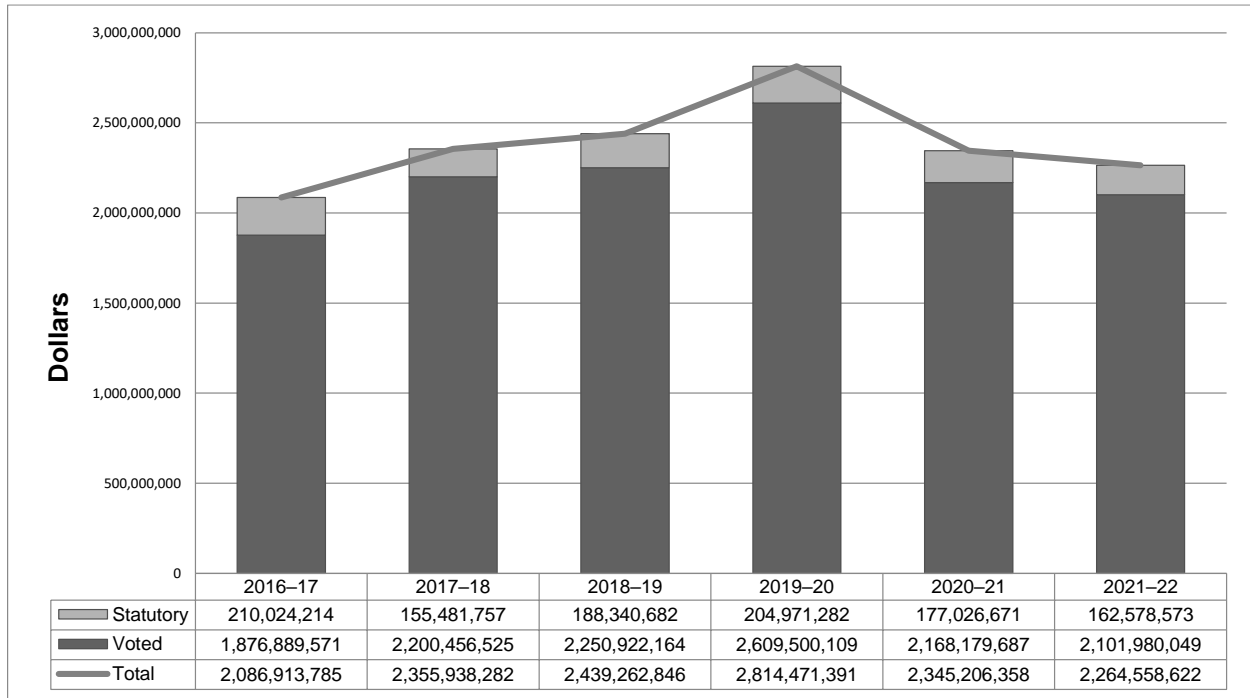




## Spending and human resources

### Planned spending

#### Departmental spending trend graph



Budgetary planning summary for Core Responsibilities and Internal Services  
(dollars)

Core Responsibilities and Internal Services	2016–17 Expenditures	2017–18 Expenditures	2018–19 Forecast spending	2019–20 Main Estimates	2019–20 Planned spending	2020–21 Planned spending	2021–22 Planned spending
People, Skills and Communities (1)	259,727,828	246,923,115	369,682,464	453,557,392	453,557,392	279,038,357	186,246,291
Science, Technology, Research and Commercialization (2)	1,007,068,828	1,105,279,517	895,712,066	935,768,418	935,768,418	887,786,163	991,291,155
Companies, Investment and Growth (3)	666,023,360	822,745,923	995,589,465	1,262,721,251	1,262,721,251	1,021,969,830	933,365,677
<b>Subtotal</b>	<b>1,932,820,016</b>	<b>2,174,948,555</b>	<b>2,260,983,995</b>	<b>2,652,047,061</b>	<b>2,652,047,061</b>	<b>2,188,794,350</b>	<b>2,110,903,123</b>
Internal Services	154,093,769	180,989,727	178,278,851	162,424,330	162,424,330	156,412,008	153,655,499
<b>Total</b>	<b>2,086,913,785</b>	<b>2,355,938,282</b>	<b>2,439,262,846</b>	<b>2,814,471,391</b>	<b>2,814,471,391</b>	<b>2,345,206,358</b>	<b>2,264,558,622</b>

### Budgetary Planning Summary Explanation

**Note:** Figures for 2016-17 and 2017-18 are estimates based on the percentages established in the [crosswalk between the Program Alignment Architecture for 2017-18 and the Departmental Results Framework<sup>xliii</sup>](#). The figures are presented for illustrative purposes only. Main Estimates and Planned spending figures do not include Budget 2019 announcements. More information will be provided in the 2019-20 Supplementary Estimates and Departmental Results Report, as applicable.

1. The increase between 2018-19 and 2019-20 Main Estimates is mainly related to a reprofile of funds of the Connect to Innovate program from 2018-19 to 2019-20, partially offset by the decrease in funding for the sunsetting of CanCode. The decrease between 2019-20 and 2021-22 Planned Spending is mainly related to the sunsetting of the Connect to Innovate Program.
2. The increase between 2018-19 and 2019-20 Main Estimates is mainly related to a reprofile of funds for the Innovation Superclusters Initiative and approved funding for the Digital Research Infrastructure Strategy, partially offset by a decrease due to a reprofile of funds for the Post-Secondary Institutions Strategic Investment Fund. The decrease between 2019-20 and 2020-21 Planned Spending is mainly related to a reprofile of funds for the Post-Secondary Institutions Strategic Investment Fund, a decrease in approved funding for Genome Canada and the sunsetting of CANARIE. The decrease is partially

offset by and an increase in approved funding for the Innovation Superclusters initiative and the Digital Research Infrastructure Strategy. The increase between 2020-21 and 2021-22 Planned Spending is mainly related to an increase in approved funding for the Canada Foundation for Innovation and the Digital Research Infrastructure Strategy.

3. The increase between 2018-19 and 2019-20 Main Estimates is mainly related to an increase in approved funding for the Strategic Innovation Fund (SIF) and the Sustainable Development Technology Fund, and the transfer of the Build in Canada Innovation Program (BCIP) from Public Services and Procurement Canada to ISED. The increase is partially offset by the decrease in approved funding for legacy programs that are now consolidated under SIF: Automotive Innovation Fund (AIF), Automotive Supplier Innovation Program (ASIP), Strategic Aerospace and Defence Initiative (SADI) and Technology Demonstration Program (TDP).

The decrease between 2019-20 and 2020-21 Planned Spending is mainly related to a decrease in approved funding for the IP Strategy (Patent Collective Pilot Program) and the SIF, and legacy programs that are now consolidated under SIF: AIF, ASIP, SADI and TDP. This decrease is partially offset by an increase in the approved funding for the Sustainable Development Technology Fund. The decrease between 2020-21 and 2021-22 Planned Spending is mainly related to a decrease in approved funding for SIF and the legacy programs that are now consolidated under SIF: AIF, ASIP, SADI and TDP.

## 2019–20 Budgetary planned gross spending summary (dollars)

Core Responsibilities and Internal Services	2019–20 Planned gross spending	2019–20 Planned gross spending for specified purpose accounts	2019–20 Planned revenues netted against expenditures	2019–20 Planned net spending
People, Skills and Communities	453,557,392	-	-	453,557,392
Science, Technology, Research and Commercialization	935,768,418	-	-	935,768,418
Companies, Investment and Growth	1,505,700,710	-	(242,979,459)	1,262,721,251
<b>Subtotal</b>	<b>2,895,026,520</b>	<b>-</b>	<b>(242,979,459)</b>	<b>2,652,047,061</b>
Internal Services	198,374,330	-	(35,950,000)	162,424,330
<b>Total</b>	<b>3,093,400,850</b>	<b>-</b>	<b>(278,929,459)</b>	<b>2,814,471,391</b>

## Planned human resources

Human resources planning summary for Core Responsibilities and Internal Services (full-time equivalents)

Core Responsibilities and Internal Services	2016–17 Actual full-time equivalents	2017–18 Actual full-time equivalents	2018–19 Forecast full-time equivalents	2019–20 Planned full-time equivalents	2020–21 Planned full-time equivalents	2021–22 Planned full-time equivalents
People, Skills and Communities	142	149	178	186	185	185
Science, Technology, Research and Commercialization	90	106	107	110	110	109
Companies, Investment and Growth	3,159	3,193	3,301	3,395	3,440	3,449
<b>Subtotal</b>	<b>3,391</b>	<b>3,448</b>	<b>3,586</b>	<b>3,691</b>	<b>3,735</b>	<b>3,743</b>
Internal Services	1,410	1,462	1,599	1,604	1,604	1,604
<b>Total</b>	<b>4,801</b>	<b>4,910</b>	<b>5,185</b>	<b>5,295</b>	<b>5,339</b>	<b>5,347</b>

**Note:** Figures for 2016-17 and 2017-18 are estimates based on the percentages established in the [crosswalk between the Program Alignment Architecture for 2017-18 and the Departmental Results Framework<sup>xliv</sup>](#). The figures are presented for illustrative purposes only. Full-time equivalents figures do not include Budget 2019 announcements. More information will be

provided in the 2019-20 Supplementary Estimates and Departmental Results Report, as applicable.

## Estimates by vote

Information on ISED’s organizational appropriations is available in the [2019-20 Main Estimates](#).<sup>xlv</sup>

## Future-Oriented Condensed Statement of Operations

The Future-Oriented Condensed Statement of Operations provides a general overview of ISED’s operations. The forecast of financial information on expenses and revenues is prepared on an accrual accounting basis to strengthen accountability and to improve transparency and financial management. The forecast and planned spending amounts presented in other sections of the Departmental Plan are prepared on an expenditure basis; as a result, amounts may differ.

A more detailed Future-Oriented Statement of Operations and associated notes, including a reconciliation of the net cost of operations to the requested authorities, are available on [ISED’s website](#).<sup>xlvi</sup>

### Future-Oriented Condensed Statement of Operations for the year ending March 31, 2020 (dollars)

Financial information	2018–19 Forecast results	2019–20 Planned results	Difference (2019–20 Planned results minus 2018–19 Forecast results)
Total expenses	2,545,588,966	2,960,350,193	414,761,227
Total revenues	249,562,278	247,979,459	(1,582,819)
Net cost of operations before government funding and transfers	2,296,026,688	2,712,370,734	416,344,046

Total expenses year-over-year are expected to increase by approximately 16% (\$415 million). The change is primarily attributable to increases in transfer payments, particularly for the Strategic Innovation Fund, the Innovation Superclusters Initiative, the Connect to Innovate program, the Canada Foundation for Sustainable Development Technology, and the Digital Research Infrastructure Strategy. These increases will be offset by a reduction in the Post-Secondary Institutions Strategic Investment Fund. The remainder of the increase is attributable to higher operating expenditures for new and existing programs.

Total revenues (net of those earned on behalf of government) are projected to remain stable year over year, with minor variance noted.



## Additional information

### Corporate information

#### **Organizational profile**

##### **Minister of Innovation, Science and Economic Development:**

The Honourable Navdeep Bains, P.C., M.P.

##### **Minister of Science and Sport:**

The Honourable Kirsty Duncan, P.C., M.P.

##### **Minister of Tourism, Official Languages and La Francophonie:**

The Honourable Mélanie Joly, P.C., M.P.

##### **Minister of Small Business and Export Promotion:**

The Honourable Mary Ng, P.C., M.P.

##### **Institutional head:**

John Knuble

##### **Ministerial portfolio:**

[Innovation, Science and Economic Development](#)<sup>xlvi</sup>

##### **Enabling instrument:**

Innovation, Science and Economic Development Canada's founding legislation is the [Department of Industry Act](#)<sup>xlvi</sup>, S.C. 1995, c.1.

##### **Year of incorporation / commencement:**

1892

##### **Raison d'être, mandate and role: who we are and what we do**

“Raison d'être, mandate and role: who we are and what we do” is available on [ISED's website](#)<sup>xlix</sup>.

## Reporting framework

ISED’s Departmental Results Framework and Program Inventory of record for 2019-20 are shown below.

CORE RESPONSIBILITIES	People, Skills & Communities	Science, Technology, Research & Commercialization	Companies, Investment & Growth
DEPARTMENTAL RESULTS & RESULT INDICATORS	<p><b>Canada has a highly skilled workforce that is equipped for jobs in an innovative and high-growth economy</b></p> <ul style="list-style-type: none"> <li>Percentage of professional, science and technology related jobs in Canada’s economy</li> <li>Number of STEM graduates in Canada</li> <li>Number of Canadians that receive digital and coding skills training and development opportunities through ISED programs</li> </ul> <p><b>Canadian communities are connected to and use digital infrastructure</b></p> <ul style="list-style-type: none"> <li>Percentage of population with access to ultrafast broadband</li> <li>Percentage of households with an Internet connection (including across underserved individuals, such as low-income)</li> </ul> <p><b>Canada’s entrepreneurs represent all segments of Canadian society</b></p> <ul style="list-style-type: none"> <li>Percentage of SMEs that are majority-owned by women, Indigenous people, youth, visible minorities and persons with disabilities</li> <li>Number of SMEs supported by ISED programs, including those that are majority-owned by women, Indigenous people, youth, visible minorities and persons with disabilities</li> </ul>	<p><b>World-leading superclusters are grown in Canada</b></p> <ul style="list-style-type: none"> <li>Number of new firms created (in targeted areas)</li> <li>Number of anchor firms (in targeted areas)</li> <li>Value of investments leveraged to develop clusters as a result of ISED program funding (per dollar invested)</li> </ul> <p><b>Canadian businesses invest more in research and development (R&amp;D)</b></p> <ul style="list-style-type: none"> <li>Business Expenditure in Research and Development (BERD) in dollars</li> <li>Percentage of companies engaged in collaborations with higher education institutions</li> <li>Value of BERD by firms receiving ISED program funding (in dollars)</li> </ul> <p><b>Canada has world leading-research capacity</b></p> <ul style="list-style-type: none"> <li>Canada’s rank among OECD nations on the citation score of science research publications</li> <li>Number of co-authored publications between federal and non-federal scientists</li> <li>Value of investments leveraged in science and research infrastructure as a result of ISED program funding (per dollar invested)</li> </ul>	<p><b>Canada becomes a global leader in clean technologies</b></p> <ul style="list-style-type: none"> <li>Value of Canada’s exports of clean technologies (in dollars)</li> <li>Clean technology employment in Canada (in numbers)</li> <li>Value of investments leveraged in clean technologies as a result of ISED program funding (per dollar invested)</li> </ul> <p><b>Canadian companies are globally competitive and achieve high growth</b></p> <ul style="list-style-type: none"> <li>Number of high-growth firms</li> <li>Value of Canada’s goods and services exports (in dollars)</li> <li>Revenue growth rate of firms supported by ISED programs</li> </ul> <p><b>Canada is a location and destination of choice for investment, growth and tourism</b></p> <ul style="list-style-type: none"> <li>Total Business Investment in Canada (in dollars)</li> <li>Spending by international visitors to Canada (in dollars)</li> <li>Number of international overnight visitors to Canada</li> <li>Turn-around times for patent applications filed in Canada, with a request for examination</li> </ul> <p><b>Canadian innovators have simplified access to tools and support</b></p> <ul style="list-style-type: none"> <li>Canada’s ranking on the World Bank’s Ease of Doing Business Index</li> <li>Percentage of ISED priority services that meet published service standards</li> </ul>
PROGRAMS	<ol style="list-style-type: none"> <li>Talent Development</li> <li>Entrepreneurship Policy</li> <li>Bridging Digital Divides</li> <li>Economic Development in Northern Ontario</li> <li>Consumer Affairs</li> </ol>	<ol style="list-style-type: none"> <li>Higher Education Sector Science &amp; Research</li> <li>Horizontal Science, Research &amp; Technology Policy</li> <li>Innovation Superclusters Initiative</li> <li>Support to External Advisors</li> </ol>	<ol style="list-style-type: none"> <li>Innovation in Business</li> <li>Support &amp; Financing for Small Business</li> <li>Business Policy &amp; Analysis</li> <li>Economic Outcomes from Procurement</li> <li>Digital Service</li> <li>Spectrum &amp; Telecommunications</li> <li>Clean Technology &amp; Clean Growth</li> <li>Communication Technologies, Research &amp; Innovation</li> <li>Business Conditions Policy</li> <li>Insolvency</li> <li>Intellectual Property</li> <li>Competition Law Enforcement &amp; Promotion</li> <li>Federal Incorporation</li> <li>Investment Review</li> <li>Trade Measurement</li> <li>Tourism Policy</li> </ol>



## Supporting information on the Program Inventory

Supporting information on planned expenditures, human resources, and results related to ISED's Program Inventory is available in the [GC InfoBase](#).<sup>1</sup>

## Supplementary information tables

The following supplementary information tables are available on [ISED's website](#)<sup>ii</sup>:

- ▶ Departmental Sustainable Development Strategy
- ▶ Details on transfer payment programs of \$5 million or more
- ▶ Disclosure of transfer payment programs under \$5 million
- ▶ Gender-based analysis plus
- ▶ Up-front multi-year funding

## Federal tax expenditures

The tax system can be used to achieve public policy objectives through the application of special measures such as low tax rates, exemptions, deductions, deferrals and credits. The Department of Finance Canada publishes cost estimates and projections for these measures each year in the [Report on Federal Tax Expenditures](#).<sup>iii</sup> This report also provides detailed background information on tax expenditures, including descriptions, objectives, historical information and references to related federal spending programs, as well as evaluations, research papers and gender-based analysis. The tax measures presented in this report are the responsibility of the Minister of Finance.

## Organizational contact information

Corporate Management Sector  
Innovation, Science and Economic Development Canada  
235 Queen Street  
2<sup>nd</sup> Floor, East Tower  
Ottawa ON K1A 0H5

Email: [ic.info-info.ic@canada.ca](mailto:ic.info-info.ic@canada.ca)

Fax: 613-954-2340



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## Appendix: definitions

### **appropriation (crédit)**

Any authority of Parliament to pay money out of the Consolidated Revenue Fund.

### **budgetary expenditures (dépenses budgétaires)**

Operating and capital expenditures; transfer payments to other levels of government, organizations or individuals; and payments to Crown corporations.

### **Core Responsibility (responsabilité essentielle)**

An enduring function or role performed by a department. The intentions of the department with respect to a Core Responsibility are reflected in one or more related Departmental Results that the department seeks to contribute to or influence.

### **Departmental Plan (plan ministériel)**

A report on the plans and expected performance of an appropriated department over a three-year period. Departmental Plans are tabled in Parliament each spring.

### **Departmental Result (résultat ministériel)**

Any change that the department seeks to influence. A Departmental Result is often outside departments' immediate control, but it should be influenced by Program-level outcomes.

### **Departmental Result Indicator (indicateur de résultat ministériel)**

A factor or variable that provides a valid and reliable means to measure or describe progress on a Departmental Result.

### **Departmental Results Framework (cadre ministériel des résultats)**

The department's Core Responsibilities, Departmental Results and Departmental Result Indicators.

### **Departmental Results Report (rapport sur les résultats ministériels)**

A report on the actual accomplishments against the plans, priorities and expected results set out in the corresponding Departmental Plan.

### **evaluation (évaluation)**

In the Government of Canada, the systematic and neutral collection and analysis of evidence to judge merit, worth or value. Evaluation informs decision making, improvements, innovation and accountability. Evaluations typically focus on programs, policies and priorities and examine questions related to relevance, effectiveness and efficiency. Depending on user needs, however, evaluations can also examine other units, themes and issues, including alternatives to existing interventions. Evaluations generally employ social science research methods.

**experimentation (expérimentation)**

Activities that seek to explore, test and compare the effects and impacts of policies, interventions and approaches, to inform evidence-based decision-making, by learning what works and what does not.

**full-time equivalent (équivalent temps plein)**

A measure of the extent to which an employee represents a full person-year charge against a departmental budget. Full-time equivalents are calculated as a ratio of assigned hours of work to scheduled hours of work. Scheduled hours of work are set out in collective agreements.

**gender-based analysis plus (GBA+) (analyse comparative entre les sexes plus [ACS+])**

An analytical process used to help identify the potential impacts of policies, Programs and services on diverse groups of women, men and gender-diverse people. The “plus” acknowledges that GBA goes beyond sex and gender differences. We all have multiple identity factors that intersect to make us who we are; GBA+ considers many other identity factors, such as race, ethnicity, religion, age, and mental or physical disability.

**government-wide priorities (priorités pangouvernementales)**

For the purpose of the 2019–20 Departmental Plan, government-wide priorities refers to those high-level themes outlining the government’s agenda in the 2015 Speech from the Throne, namely: Growth for the Middle Class; Open and Transparent Government; A Clean Environment and a Strong Economy; Diversity is Canada's Strength; and Security and Opportunity.

**horizontal initiative (initiative horizontale)**

An initiative where two or more departments are given funding to pursue a shared outcome, often linked to a government priority.

**non-budgetary expenditures (dépenses non budgétaires)**

Net outlays and receipts related to loans, investments and advances, which change the composition of the financial assets of the Government of Canada.

**performance (rendement)**

What an organization did with its resources to achieve its results, how well those results compare to what the organization intended to achieve, and how well lessons learned have been identified.

**performance indicator (indicateur de rendement)**

A qualitative or quantitative means of measuring an output or outcome, with the intention of gauging the performance of an organization, Program, policy or initiative respecting expected results.

**Performance Information Profile (profil de l'information sur le rendement)**

The document that identifies the performance information for each Program from the Program Inventory.

**performance reporting (production de rapports sur le rendement)**

The process of communicating evidence-based performance information. Performance reporting supports decision making, accountability and transparency.

**plan (plan)**

The articulation of strategic choices, which provides information on how an organization intends to achieve its priorities and associated results. Generally a plan will explain the logic behind the strategies chosen and tend to focus on actions that lead up to the expected result.

**planned spending (dépenses prévues)**

For Departmental Plans and Departmental Results Reports, planned spending refers to those amounts presented in the Main Estimates.

A department is expected to be aware of the authorities that it has sought and received. The determination of planned spending is a departmental responsibility, and departments must be able to defend the expenditure and accrual numbers presented in their Departmental Plans and Departmental Results Reports.

**priority (priorité)**

A plan or project that an organization has chosen to focus and report on during the planning period. Priorities represent the things that are most important or what must be done first to support the achievement of the desired Departmental Results.

**Program (programme)**

Individual or groups of services, activities or combinations thereof that are managed together within the department and focus on a specific set of outputs, outcomes or service levels.

**Program Inventory (répertoire des programmes)**

Identifies all of the department's programs and describes how resources are organized to contribute to the department's Core Responsibilities and Results.

**result (résultat)**

An external consequence attributed, in part, to an organization, policy, Program or initiative. Results are not within the control of a single organization, policy, Program or initiative; instead they are within the area of the organization's influence.

**statutory expenditures (dépenses législatives)**

Expenditures that Parliament has approved through legislation other than appropriation acts. The legislation sets out the purpose of the expenditures and the terms and conditions under which they may be made.

**sunset program (programme temporisé)**

A time-limited program that does not have an ongoing funding and policy authority. When the program is set to expire, a decision must be made whether to continue the program. In the case of a renewal, the decision specifies the scope, funding level and duration.

**target (cible)**

A measurable performance or success level that an organization, Program or initiative plans to achieve within a specified time period. Targets can be either quantitative or qualitative.

**voted expenditures (dépenses votées)**

Expenditures that Parliament approves annually through an Appropriation Act. The Vote wording becomes the governing conditions under which these expenditures may be made.

## Endnotes

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